



## **Biennium Information Technology Plan 2010/2011**

North Carolina Department of Health & Human Services





Version 1.0

NC DHHS Division of Information Resource Management (DIRM)

Submission Date: October 1, 2008



## Table of Contents

<b>1. INTRODUCTION .....</b>	<b>1</b>
1.1. PURPOSE .....	1
1.2. SCOPE .....	1
<b>2. MISSION AND VISION OF DIRM .....</b>	<b>1</b>
<b>3. MAJOR BUSINESS CHALLENGES AND REQUIREMENTS .....</b>	<b>2</b>
3.1. MANAGEMENT OF COMPUTING RESOURCES .....	2
3.2. ALIGNMENT OF IT WITH ENTERPRISE STRATEGIES .....	3
3.3. USE OF DATA AND INFORMATION RESOURCES .....	3
3.4. NEED FOR EXPANDED USE OF MODERN TECHNOLOGIES .....	4
3.4.1. <i>Decision Support</i> .....	4
3.4.2. <i>Enterprise Mobility</i> .....	5
3.4.3. <i>Web Conferencing/ Videoconferencing</i> .....	5
3.5. IT PLANNING, INTEGRATION AND EFFECTIVENESS .....	6
3.6. SUMMARY OF DIVISIONAL CHALLENGES/ REQUIREMENTS .....	7
<b>4. CHALLENGES IN MEETING BUSINESS REQUIREMENTS .....</b>	<b>8</b>
4.1. ENABLE ENTERPRISE THINKING .....	8
4.2. SKILLED IT PERSONNEL .....	8
4.3. JUSTIFYING THE BENEFITS OF MAJOR ADVANCES .....	8
4.4. CROSS-PROGRAM DATA ANALYSIS .....	9
4.5. STRATEGIES FOR MITIGATING RISKS .....	9
<b>5. MAJOR TECHNOLOGY STRATEGIES FOR PREFERRED FUTURE ENVIRONMENT .....</b>	<b>9</b>
5.1. GOAL: FORMALIZE MANAGEMENT OF COMPUTING RESOURCES .....	10
5.2. GOAL: REALIGN IT WITH ENTERPRISE STRATEGIES .....	11
5.3. GOAL: FOSTER EFFECTIVE USE OF DATA AND INFORMATION RESOURCES .....	11
5.4. GOAL: EXPAND FACILITATED LEARNING AND USAGE OF TECHNOLOGY .....	12
5.5. GOAL: IMPROVE IT PLANNING AND INTEGRATION .....	13
5.6. GOAL: MEASURE AND IMPROVE IT EFFECTIVENESS .....	13
<b>6. DOCUMENT REFERENCES .....</b>	<b>14</b>
6.1. NC GOVERNMENT DOCUMENTS .....	14
6.2. OTHER DOCUMENTS CONSULTED .....	14
6.3. ORDER OF PRECEDENCE .....	15

## Tables

TABLE 1 REQUIREMENTS TO ADDRESS IT PLANNING, INTEGRATION AND EFFECTIVENESS .....	6
--	---



*This page intentionally left blank.*

# 1. Introduction

The North Carolina Department of Health and Human Services (NC DHHS) submits this *Biennium Information Technology Plan* to the NC State Chief Information Officer (SCIO) in compliance with [NC General Statute 147-33.72B](#).

## 1.1. Purpose

---

This *Biennium IT Plan* outlines the major technology changes needed to overcome current business challenges and modernize the technology that supports the department's mission, which is to serve the people of North Carolina by enabling individuals, families, and communities to be healthy, secure, and able to achieve social and economic well-being.<sup>1</sup>

**Note.** Readers of this *Biennium IT Plan* should be familiar with the [DHHS Business Plan](#).

## 1.2. Scope

---

This plan covers a two-year period beginning July 1, 2009, and ending June 30, 2011, and provides readers with the following:

- The major, technology-addressable, strategic challenges currently facing NC DHHS business areas
- The major technology strategies needed to enable the preferred future business environment
- The two-year technology plan for NC DHHS

Significant to understanding the aforementioned is having knowledge of the mission of the Division of Information Resource Management (DIRM), which is the information technology unit for NC DHHS. *Section 2* explains.

# 2. Mission and Vision of DIRM

The mission of DIRM is to provide enterprise information technology (IT) leadership to NC DHHS and its partners so they can leverage technology resulting ultimately in the delivery of consistent, cost effective, reliable, accessible, and secure services.

The NC DHHS Secretary delegates authority to DIRM, via [Directive II-12](#), and provides the context for the relationship between DIRM and the other divisions and offices of NC DHHS.

For the period between July 1, 2009 and June 30, 2011, DIRM's leadership envisions that by continuing to use its cross-agency access to business requirements for technology and user communities, the division will continue to play a key role in the department's design, implementation, and

---

<sup>1</sup> NC Office of the Governor. *2007-2009 Governor's Recommended Budget; Recommended Operating Budget: with Results-Based Information*. NC State Budget, Health and Human Services Volume 3, P1. Available at: [http://www.osbm.state.nc.us/files/pdf\\_files/bgt0709v3r.pdf](http://www.osbm.state.nc.us/files/pdf_files/bgt0709v3r.pdf)

maintenance of enterprise strategies for technology, resulting in improved quality, lowered costs, and managed growth of the benefits and services delivered.

As subsequent sections of this *Biennium IT Plan* convey, fulfilling DIRM's mission and vision will continue to require significant technology changes to overcome the major strategic business challenges facing the department. Some of the changes have been and will continue to be at the enterprise-level and coordinated by DIRM, while others have been and will continue to be at the level of various divisions and offices, with DIRM providing guidance, oversight and/or advice.

### **3. Major Business Challenges and Requirements**

This section examines the major enterprise and divisional issues over which information technology can affect change.

The following concerns recur across NC DHHS and interfere with the department's ability to meet quality and performance measures, optimally:

- Management of Computing Resources
- Alignment of IT with Enterprise Strategies
- Use of Data and Information Resources
- Need for Expanded Use of Modern Technologies
- IT Planning, Integration and Effectiveness

#### **3.1. Management of Computing Resources**

---

Within the department's technology community, regardless of whether the topic is supporting the largest of applications or smallest of end-user computing devices, it is common to hear about difficulties maintaining older technology. That is, hardware and software that is no longer functioning as intended, meeting user requirements, supported by vendors, or associated with current skills available in the labor market. The gap between the department's technology requirements and technology performance is widening for critical assets without which program areas could barely function. Several assets are beyond rehabilitation, including, but not limited to, printers, switches, servers, and end-user workstations across the department, as well as numerous legacy applications over 20 years old.

NC DHHS requires a program of continuous review for hardware and software, which (1) upholds that all technology assets have a limited useful life; (2) prioritizes need; and (3) allocates resources to keep assets within specified performance standards. DIRM is leading and coordinating departmental efforts to implement measures to provide ultimately for life-cycle management of all IT assets, including the definition of budgetary requirements.

NC DHHS has purchased an automated asset management system and developed centralized, department-wide budgets for IT infrastructure. In addition, the department has and will continue to work with NC ITS to

ensure that the department receives advance notification of any hosting equipment approaching the end of its life. Advance notice will ensure that agencies have the necessary information to plan and budget for replacement.

#### **Business Requirements**

*Enhance Infrastructure and Application Life-cycle Management. Formally evaluate the effectiveness of applications and infrastructure in the department's inventories and portfolio.*

*Plan, organize, and control the maintenance of technology to ensure NC DHHS routinely replaces or retires obsolete assets that are no longer returning on investment and/or meeting the needs of the business.<sup>2</sup>*

### **3.2. Alignment of IT with Enterprise Strategies**

---

NC DHHS uses information technology to decrease the time it takes to design, deliver, and market the benefits and services it offers, increase access to information, and integrate value-added functions. With the creation of the NC DHHS Information Technology Governance Committee (ITGC) in October 2006, the department has begun to shift its focus away from individual information technology projects to the business architecture that includes common requirements—requirements the department can address with technical solutions that program areas can share rather than duplicate.

#### **Business Requirement**

*Apply Enterprise Approach to IT. Establish an enterprise-wide process to ensure that when NC DHHS invests in a new system or enhancement, the department considers a holistic view of its application.<sup>3</sup>*

### **3.3. Use of Data and Information Resources**

---

The department stores a wide variety of data in automated formats and most program areas in NC DHHS could not function without their information systems. In these systems, NC DHHS maintains records of or pertaining to vaccinations, medical histories, client demographics, convictions, economics, child support payments, water analyses, licensure, violations, counseling, utilization, physical space and so on, exemplifying the variety of data distributed throughout the department.

Program and support areas spend a lot of time gathering and reconciling data from providers, local governments, and state field offices and could benefit a great deal from more prescribed, shared, and readily accessible organizations of information.<sup>4</sup>

As an example, the department has no single, automated means to account for all of the services and benefits it provides to an individual client.

<sup>2</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P66.

<sup>3</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P15.

<sup>4</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P14-15.

Consequently, executive program managers have difficulty obtaining and measuring the outcomes of the comprehensive counseling, benefits, care management, and/or case management an individual receives from NC DHHS. Overcoming this challenge requires streamlined, shared, and accessible information systems.

Program areas are looking for information technology to support their ability to collaborate across the department with consumers/clients, partners, and providers.

**Business Requirements**

*Enhance Guidelines for Enterprise Approach to IT.*

*Enhance the ability to share data by (1) determining and implementing the level of data integration required; (2) building and maintaining a program to ensure the modernism and peak performance of technical links between related data and systems; and (3) developing clear guidelines around data ownership and a process for arbitration.<sup>5</sup>*

### 3.4. Need for Expanded Use of Modern Technologies

---

Technology is advancing rapidly, and DHHS managers make every effort to stay abreast of the advances to ensure the best solutions are applied to facilitate work and overcome business problems. The department's further application of technology related to the following three areas is key:

- Decision Support
- Enterprise Mobility
- Web Conferencing/Videoconferencing

#### 3.4.1. Decision Support

Every day NC DHHS program managers face compound problems that require intricate analyses and resolutions. Decisions that affect individuals, families, and communities, rely on a wealth of data and information models. The department has its own Client Services Data Warehouse (CSDW), which provides historical data to county, state, federal and third party users. The data covers a variety of programs administered by NC DHHS, including, but not limited to, Child Support Enforcement, Child Welfare, Medicaid and Resource and Regulatory Management and should be expanded to include others.

DIRM has and will continue to present the capabilities of CSDW and the need for data warehousing. Widespread usage of any decision support system is critical to its sustainability, because these systems are most useful when the amount and variety of data in them abound.

---

<sup>5</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P16.



**Business Requirement**

*Expand the Use of Existing Decision Support System. Build awareness of the existence and benefits of support systems to promote interest, evaluation, and trial with an eye on promoting adoption, increasing use, incorporating more data, and hence enhancing decision quality.<sup>6</sup>*

**3.4.2. Enterprise Mobility**

Many of the department's core activities require NC DHHS employees to work away from their desks, including, but not limited to, case management, policy and regulatory enforcement, surveillance and monitoring, education and communication, and protection and prevention activities. Laptop computers, cloud computing, smart phones, and a host of other technical services have arrived and evolved to enable users to access information from anywhere anytime.

Despite the prevalence of technologies that enable remote access and remote computing, NC DHHS still has workers in the field without these, who could work more effectively and efficiently given technical solutions that enable their mobility.<sup>7</sup>

**Business Requirement**

*Enable Enterprise Mobility. Ensure employees receive the proper devices, data and voice services, support, and training necessary to work effectively from remote locations. Implement the appropriate processes, policies, and standards to ensure the department manages its mobility.<sup>8</sup>*

**3.4.3. Web Conferencing/Videoconferencing**

NC DHHS serves citizens statewide through local governments, provider communities, and satellite offices. Arranging for distant personnel to attend staff and team meetings is challenging to coordinate. An uncertain U.S. economy and higher gas prices compound the situation, causing managers to look to technology to reduce travel and lodging expenditures.

The NC Office of Information Technology Services (ITS) offers web conferencing and videoconferencing services. NC ITS is currently taking steps to procure cost effective conferencing services with improved functionality for use by all executive branch agencies.

**Web Conferencing**

Web conferencing allows personnel in different geographic locations to come together in a virtual online office.<sup>9</sup>

**Videoconferencing**

Videoconferencing allows face-to-face interaction in real time with two-way video and audio

<sup>6</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P15.

<sup>7</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P16.

<sup>8</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P16.

<sup>9</sup> NC Office of Information Technology Services. *Service Catalog: Web Conferencing*. Available at: <http://www.its.state.nc.us/ServiceCatalog/WebConferencingServices.asp>

communication. Taking advantage of videoconferencing would enable employees to increase productivity, reduce travel expenses, and quickly bring together personnel throughout the state<sup>10</sup>.

NC DHHS has been sharing its requirements with NC ITS for conferencing services.

#### **Business Requirement**

*Enable Web and/or Videoconferencing. Build awareness of the web and videoconferencing services NC ITS offers and ensure program areas receive the level of conferencing services needed.*<sup>11</sup>

### 3.5. IT Planning, Integration and Effectiveness

NC DHHS is working diligently to further implement its centralized IT approach. NC DHHS is bringing both IT and business staff to the table to discuss, plan and implement information technology solutions that will meet multi-divisional and/or departmental needs.

Table 1 highlights a few of the concerns and corresponding business requirements specified in the *DHHS Business Plan*. Continuing to shift the department's technology strategy to a more, centrally planned approach enables NC DHHS to operate within a more disciplined planning process and evaluate the true at-large impact of technology or lack thereof.

*Table 1 Requirements to Address IT Planning, Integration and Effectiveness*

<b>Concerns</b>	<b>Business Requirement</b>
Manual and paper-driven processes	Address Need to Implement New System(s). Improve the situation of having too many manual and paper-driven processes through the effective application of IT in conjunction with process re-engineering. <sup>12</sup>
Rows of filing cabinets, stacks of boxes, inability to access important documents quickly and easily regardless of physical location, and overall processing time	Address Scanning and Document Management Solution(s). <sup>13</sup>
Nurses, custodians, maintenance personnel and others are without access to a computer, hence unable to manage their own human resources information online.	Address kiosks or other means <sup>14</sup> for enabling computer access to employees department-wide.

<sup>10</sup> NC Information Technology Services. *Service Catalog: Video Conferencing*. Available at: <http://www.its.state.nc.us/ServiceCatalog/VideoConferencing.asp>

<sup>11</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P16.

<sup>12</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P15.

<sup>13</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P15 and 48.

<sup>14</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P17.

Concerns	Business Requirement
Applications and web sites are not accessible to people with disabilities of all kinds—mental and physical.	Effect IT Policy/Standard. Ensure awareness and compliance with departmental policies requiring application and web site accessibility to people with disabilities. <sup>15</sup>
Of the roughly 3,000 NC DHHS state employees in Wake County, about one third are located on the Dorothea Dix Campus, and the remainder are scattered at numerous locations in every corner of the county. This has created unsustainable logistical costs relating to facility leases and maintenance, redundant telephone systems and IT equipment, travel between locations for meetings, and delays in receiving mail and other time sensitive documents. <sup>16</sup>	Enable Infrastructure at New Location(s).

### 3.6. Summary of Divisional Challenges/Requirements

In addition to the aforementioned enterprise challenges, the *DHHS Business Plan* highlights divisional challenges. Taken as a whole, the divisional challenges expose the following business requirements:

- Apply Enterprise Approach to IT
- Effect IT Policy/Standard
- Enable Enterprise Mobility
- Enable Infrastructure at New Location(s)
- Enable Partner Access to Data
- Enable Web and/or Videoconferencing
- Enhance Existing System(s)
- Enhance Seamless Access to DHHS Programs and Services through Systems Integration
- Expand Use of Building Monitoring Systems (BMS)
- Expand Use of Common Name Data System (CNDS)
- Expand the Use of Existing Decision Support System
- Address Scanning and Document Management Solution(s)
- Address Electronic Medical Records/Electronic Health Records
- Address Kiosks
- Address Need to Implement New System(s)
- Provide IT Consultation

<sup>15</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P17.

<sup>16</sup> NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, P51-52.

- Address IT Infrastructure
- Address Need to Upgrade Existing System(s)

These divisional requirements and the requirements exposed on examination of the enterprise-level challenges, are the business drivers that NC DHHS must address during the July 1, 2009 through June 30, 2011 period.

## **4. Challenges in Meeting Business Requirements**

Four major challenges threaten to jeopardize the department's ability to fulfill enterprise and divisional business requirements for technology:

- Enable Enterprise Thinking
- Skilled IT Personnel
- Financially Justifying the Benefits of Major Advances
- Cross-Program Data Analysis

### **4.1. Enable Enterprise Thinking**

---

Personnel in program areas have traditionally focused on individual program area needs rather than how the department should deliver benefits and services to meet cross-program requirements, which in turn will ultimately change how information technology solutions should be delivered to meet these requirements. Bridging assumptions across the department to enable enterprise thinking is a challenge, which is critical to making significant technological changes to fulfill goals related to unifying services.

### **4.2. Skilled IT Personnel**

---

DIRM management estimates that somewhere between 10 and 13% of the division's IT personnel will be eligible for retirement in 2010.<sup>17</sup> Finding and retaining personnel with specialized information technology and systems skills is a considerable concern. Recruitment and retention of highly skilled IT personnel is continually a challenge. Furthermore, without funding to support upgrades and/or replacement of legacy applications and infrastructure, we will have a continued need for a significant percentage of our workforce to be knowledgeable and experienced with support of older technologies. As a portion of the current IT workforce enters into retirement, and others advance their IT skills, it is increasingly more of a challenge to provide continuity of support of our critical, legacy systems.

### **4.3. Justifying the Benefits of Major Advances**

---

One of the most important difficulties NC DHHS faces trying to transform its information systems and technology into modern, efficient, and

---

<sup>17</sup> Assumption: The percentage of DIRM personnel eligible for retirement lies somewhere between the percentage for NC DHHS and that for NC ITS. Refer to NC State Government Demographics provided by the NC Office of State Personnel, <http://www.performancesolutions.nc.gov/workforcePlanning/NCWorkforceDemographicsGraphsAndCharts/index.aspx#re>.

strategically aligned assets is quantifying benefits to decision-makers. Major changes that require a significant investment and more than one year to effect especially hit this barrier. Perhaps this situation is brought about because the requested technologies support programs designed to ensure the health, safety, and well being of North Carolinians—a responsibility on which it is difficult to put a monetary value.

#### 4.4. Cross-Program Data Analysis

---

NC DHHS' data is very broad (refer to Section 3.3). Getting to what is common and addressing the information requirements of the department at-large as opposed to individual program areas requires an enterprise analysis to identify key entities, attributes, and relationships. Recent efforts have been focused on some multi-divisional program analysis, but this needs to be further expanded.

#### 4.5. Strategies for Mitigating Risks

---

NC DHHS must continue to incorporate, into its plan to implement business requirements, the following activities to offset anticipated obstacles:

- Continue to enhance guidelines to direct an enterprise approach to IT. Including the model for consensus building and decision authority that makes enterprise thinking obligatory.
- Align programs for infrastructure and application life-cycle management to programs for personnel succession planning and professional development to ensure the level and continuity of technical services required.
- Continue to work with department- and state-level decision makers to agree on the hard and soft benefits associated with the business of NC DHHS and the methods for calculating these.
- Conduct an enterprise analysis to identify key entities, attributes, and relationships for common data.

### 5. Major Technology Strategies for Preferred Future Environment

This section provides the technology goals, objectives, and strategies aimed to address the high-level enterprise and divisional business challenges, requirements and anticipated obstacles discussed in section 3. The *DHHS Business Plan* outlines and provides more detail about these business needs.

Those few areas where things must go right for NC DHHS to be considered successful in achieving the goals of this Technology Plan are...

- Obtaining project and budget approvals from state leaders and federal partners

- Securing personnel resources with the know-how and competencies to fulfill the strategies
- Clearly defining, justifying, and prioritizing business cases for technology and tying efforts to performance measures
- Forming and maintaining the necessary internal and external strategic relationships with partners
- Gaining customer acceptance of outcomes
- Sustaining outcomes after implementation

### 5.1. Goal: Formalize Management of Computing Resources

Objective(s)	Strategies
Enhance Infrastructure and Application Life-cycle Management	<ul style="list-style-type: none"> <li>▪ Continue to evaluate the effectiveness of applications, workstations, servers, switches, and other hardware in the department's inventories and portfolio.</li> <li>▪ Plan, organize, and control the maintenance of technology to ensure NC DHHS routinely addresses obsolete assets that are no longer returning on investment and/or meeting the needs of the business.</li> <li>▪ Address the patchwork of legacy systems where data are not integrated, systems are hard to maintain and enhance, and where many manual processes are required to pull together data and reconcile systems.</li> <li>▪ Align programs for infrastructure and application life-cycle management to programs for personnel succession planning and professional development to ensure the level and continuity of technical services required.</li> </ul>
Address IT Infrastructure	<ul style="list-style-type: none"> <li>▪ Address obsolete departmental IT infrastructure.</li> </ul>
Address Need to Upgrade Existing System(s)	<ul style="list-style-type: none"> <li>▪ Continue efforts to procure and implement the NC Families Accessing Services through Technology (NC FAST) System.</li> <li>▪ Address need to replace the DMA Medicaid Management Information System (MMIS) to allow for changes in the administration of Medicaid and the NC State Children's Health Insurance Program (NC SCHIP).</li> <li>▪ Address need to replace other obsolete information systems in the department.</li> </ul>

## 5.2. Goal: Realign IT with Enterprise Strategies

Objective(s)	Strategies
Apply Enterprise Approach to IT	<ul style="list-style-type: none"> <li>Through the ITGC, continue efforts focusing on an enterprise-wide process to ensure that when NC DHHS invests in a new system or enhancement, the department considers a holistic view of its application.</li> <li>Continue to enhance guidelines to move staff toward an enterprise approach to IT, including the model for consensus building and decision authority that makes enterprise thinking obligatory.</li> <li>Continue the department's efforts to centralize information technology operations under DIRM.</li> </ul>
Enhance Seamless Access to DHHS Programs and Services through Systems Integration	<ul style="list-style-type: none"> <li>Conduct an enterprise analysis to identify key entities, attributes, and relationships for common data.</li> <li>Enable divisions/offices to have more seamless access to and involvement in various systems and data within the department, such as NC FAST.</li> <li>Enable the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS); Local Management Entities (LMEs); and providers to communicate and transfer patient information effectively through integration information systems.</li> </ul>

## 5.3. Goal: Foster Effective Use of Data and Information Resources

Objective(s)	Strategies
Enable Partner Access to Data	<ul style="list-style-type: none"> <li>Enhance the ability to share data by (1) determining and implementing the level of data integration required; (2) building and maintaining a program to ensure the modernism and peak performance of technical links between related data and systems; and (3) developing clear guidelines around data ownership and a process for arbitration.</li> </ul>

## 5.4. Goal: Expand Facilitated Learning and Usage of Technology

Objective(s)	Strategies
Enable Enterprise Mobility	<ul style="list-style-type: none"> <li>▪ Enable employees to work more effectively from remote locations by providing the proper devices, data and voice services, support, and necessary training.</li> <li>▪ Effect appropriate processes, policies, and standards to ensure the department manages its enterprise mobility.</li> </ul>
Enable Web and/or Videoconferencing	<ul style="list-style-type: none"> <li>▪ Continue to promote awareness of the web and videoconferencing services NC ITS offers and ensure program areas receive the level of conferencing services needed.</li> <li>▪ Enhance the department's use of technology to provide more options for delivery of training.</li> </ul>
Expand Use of Building Monitoring Systems (BMS)	<ul style="list-style-type: none"> <li>▪ Increase the number of installations of BMS to free Office of Property and Construction (OPC) labor for more wrench time.</li> </ul>
Expand Use of Common Name Data System (CNDS)	<ul style="list-style-type: none"> <li>▪ Expand divisional use of CNDS as an important feature of the each division's continued performance outcome measurements work.</li> </ul>
Implement/Expand the Use of Existing Decision Support System	<ul style="list-style-type: none"> <li>▪ Build awareness of the existence and benefits of decision support systems to promote interest, evaluation, and trial with an eye on promoting adoption, increasing use, incorporating more data, and hence enhancing decision quality.</li> <li>▪ Expand number of divisions/offices with access to relevant data and statistics for planning, development, evaluation, and dissemination of effective practices, to have a greater ability to establish and track performance outcome measures.</li> <li>▪ Expand number of divisions/offices with access to data for analysis and decision support, which is critical for evidence-based decision-making and an outcomes focus.</li> </ul>
Provide IT Consultation	<ul style="list-style-type: none"> <li>▪ Provide training opportunities and promote awareness about the use of modern communication methods, such as podcasts, blogs, Web 2.0 and other web-enabled technologies.</li> </ul>



## 5.5. Goal: Improve IT Planning and Integration

Objective(s)	Strategies
Effect IT Policy/Standard	<ul style="list-style-type: none"> <li>Promote awareness and ensure compliance with departmental policies requiring application and web site accessibility to people with disabilities of all kinds—mental and physical.</li> </ul>
Enable Infrastructure at New Location(s)	<ul style="list-style-type: none"> <li>Address new IT infrastructure for the following:               <ul style="list-style-type: none"> <li>Two new DMHDDSAS hospitals that will replace the current Cherry Hospital and Broughton Hospital</li> <li>New State Laboratory of Public Health</li> </ul> </li> </ul>
Address Scanning and Document Management Solution(s)	<ul style="list-style-type: none"> <li>Determine department-wide requirements for scanning and document management systems, and acquire and implement as necessary to meet those requirements.</li> </ul>
Address Electronic Medical Records/Electronic Health Records	<ul style="list-style-type: none"> <li>Enable DMHDDSAS facilities to have real-time, online access to clinical information at the point-of-care.</li> </ul>
Address Kiosks	<ul style="list-style-type: none"> <li>Address web-enabled kiosks to sites with employees who do not have computer access.</li> </ul>
Address Need to Implement New System(s)	<ul style="list-style-type: none"> <li>Improve the situation of having too many manual and paper-driven processes through the effective application of information technology in conjunction with process re-engineering.</li> <li>Address need to implement new systems to support DHHS program areas.</li> <li>Enable authorized NC DHHS employees to access and use the system produced by the statewide BEACON Budget and Financials Initiative.</li> </ul>

## 5.6. Goal: Measure and Improve IT Effectiveness

Objective(s)	Strategies
Provide IT Consultation	<ul style="list-style-type: none"> <li>Continue to work with department- and state-level decision makers to agree on the hard and soft benefits associated with the business of NC DHHS and the methods for calculating them.</li> </ul>
Enhance Existing System(s)	<ul style="list-style-type: none"> <li>Enhance existing systems based on business priorities and requirements.</li> </ul>

NC DHHS looks forward to working with the recipients of this Technology Plan as the department moves forward to fulfill the goals discussed herein.

## 6. Document References

### 6.1. NC Government Documents

---

- NC Office of the Governor. *2007-2009 Governor's Recommended Budget; Recommended Operating Budget: with Results-Based Information*. NC State Budget, Health and Human Services Volume 3. Available at:  
[http://www.osbm.state.nc.us/files/pdf\\_files/bgt0709v3r.pdf](http://www.osbm.state.nc.us/files/pdf_files/bgt0709v3r.pdf).
- NC Office of Information Technology Services. *Service Catalog*. Available at:  
<http://www.its.state.nc.us/ServiceCatalog/WebConferencingServices.asp>.
- NC DHHS Office of Policy and Planning. (June 17, 2008) *DHHS Business Plan*, NC DHHS. Available at:  
[http://www.ncdhhs.gov/dirm/2010\\_DHHS\\_business\\_plan.pdf](http://www.ncdhhs.gov/dirm/2010_DHHS_business_plan.pdf).
- NC Office of the State Chief Information Officer. (July 2008) *Instructions for the Preparation and Submission of Agency IT Plans*.

### 6.2. Other Documents Consulted

---

- Huotari, Maija-Leena, and Wilson, T.D. (2001) *Determining organizational information needs: the Critical Success Factors approach*. Information Research, 6(3) Available at:  
<http://www.shef.ac.uk/~is/publications/infres/paper108.html>
- Schulte, Roy W., Daniel Sholler, Kimihiko Iijima, Massimo Pezzini, Paolo Malinverno, Jess Thompson, Yefim V. Natis. (7 January 2008) *Predicts 2008: Business Applications' Architectural Styles Are Changing*. Gartner Research.
- Centennial Software. (September 2007) *Getting a head start in Software Asset Management*.
- Wallin, Leif-Olof. (17 November 2006) *How to Be Successful With Enterprise Mobility*. Gartner Research.
- Newman, David. (24 April 2008) *How to Build an EIM Road Map to Turn Information to Advantage*. Gartner Research.
- Runyon, Barry. (27 June 2007) *Data Classification Is a Vital First Step in Information Life Cycle Management*. Gartner Industry Research.
- Cresswell, Anthony M., G. Brian Burke, Theresa A. Pardo. (September 2006) *Advancing Return on Investment Analysis for Government IT: A Public Value Framework*. Center for Technology in Government, University at Albany, SUNY.

- Kyte, Andy. (15 July 2008) *Eliminate 'Legacy' in One Simple Step*. Gartner Research.

### 6.3. Order of Precedence

---

In the event of conflict between this Technology Plan and other documents referenced herein, the documentation requirements of this standard shall apply.

All documents referenced are to the identified issues/versions unless otherwise stated. Where no issue/version is quoted, the issue/version in force at the date of actual agreement/contract shall apply. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

\*\*\*End of Document\*\*\*